I. Gonzalo--287 8-5 (1919-1924) 1927 6008 Yahgan 6008

172

/608 cont./
Lothrop (b):181 says very briefly: "Bone tools of modern type sometimes are found in shellheaps under conditions implying considerable antiquity" /cited in English/.

spear- and harpoon-points. From the "Concheal de Ushuaia" Vignati (c):125 illustrated and described in detail three harpoon points, three lancets, two wedges (609), and two enamel spatulas.

609. Vignati (c):128 calls one of these "hacha" /ax/, the other "de uso desconocido" /use unknown/. For me both pieces are the bone wedges mentioned above that are used to remove bark.

We see so clearly in these pieces their absolute conformity with the bone tools still used by present-day Yamana that no one will raise any doubts about it. Proofs of their age are lacking, however, for we come across them even in the lower strata of shell heaps in various places in Yamana territory.

3. Their Origin

174 The repeated comparisons and references called forth by the description of the finds in the shell heaps have made us realize that in those places a form of culture is expressed in external objects and implements that coincides in essence and with surprising accuracy with the things we have observed among modern generations of the Yamana people. A nomadic people, unfamiliar with fixed dwellings, has built up this form of culture. That the search for food was undertaken by individual families is proved by the difference in height and extent of the settlement sites. The sea furnished at least the major portion of the food supply, for no trace of vegetable nutrients has hitherto been uncovered. Peculiarities of smaller areas are clearly shown in some of the middens: for example, in the east, especially in Bahía Harberton and in Puerto Mejillones, the number and size of the deposits is far greater

/920 cont./

[illegible] than in the west. There there was a greater variety of sea mammals and marine birds, sea urchins and crabs, whereas to the east, long open coastal strips were less favorable for hunting sea animals, hence the natives were primarily dependent on mussels in and near the large inlets. We cannot expect to find traces of pottery; the many hearth sites with ashes and bits of charcoal prove too conclusively that all food was roasted in an open hearth fire or baked in hot ashes.

In comparison with Mytilus mussels, all other animals were far less important in the diet; although it is true that the bones of mammals and birds were partly destroyed in the fire or left to the dogs, /919/ partly used for implements, and have disappeared in the course of several centuries, nevertheless we might expect larger quantities of them than we actually find. Thus, in those times, exactly as in the case of the present-day Yamana, the Mytilus mussel was the same as "bread to the Europeans" -- to repeat a favorite comparison.

As far as bone implements are concerned, their characteristic shape in former times was exactly as definite and unmistakable as it is today, as though both groups had been made in the same year. Only the spear- and arrow-points were made in a definite way which, for a century, has not often been repeated, but which nevertheless persisted in worked glass (410).

> 410. Exclusively on the basis of the worked implements still used by those Indians [yaghanes] at the end of the last century correspond in general characteristics to those from the 'concheal de Ushuaia,' with the single exception of the arrows which are not commonly used in modern times. It is not risky, then, to attribute to this race the remains found in this accumulation of residue" /translated from Spanish/. On the subject of stone implements in particular Lothrop (b):183 decides: "No distinction between stone objects on the surface and in the interior of the mounds could be detected" /cited in English/.

/810 cont./

178 The considerable number of points of agreement justifies the assumption that the original founders of the shell mounds are to be regarded as bearers of a way of life and a form of culture that do not differ from the Yaegan of recent decades. Continuously, the undiversified pictures of their culture runs through the earlier refuse-layers up to the top, upon which the Yamana of the present, like the earliest beginners, are engaged in continuing the construction of these shell heaps (611). In this way uniformity

> 611. In spite of his striking reserve, Lothrop (Ib.183 must admit: "The shellheaps throw little light on the culture or antecedents of the Yahgan except for two points. It seems that no other people except the Yahgan ever occupied southern Fuegia. It seems that the Yahgan have lived there for a very long time" /Cited in English/.

of design and execution in the implements that makes it impossible for us to see in them a succession of long intervals of time and to use them in order to determine certain events, like the types in European prehistory.

172 177 Since, therefore, we cannot rely on a so-called series of types as a measure of time, the question arises whether the shell heaps in themselves permit any kind of decision about their age. The width and thickness of the layers plainly shows everyone at first glance that very many decades went into them; more, however, it does not reveal. A definite pointer is the noteworthy fact that in no single layer of these refuse heaps can we find definite objects or traces of European origin. On the other hand, we must note that for approximately a century the natives were given all kinds of things by Whites and these have come into everyday use. The bulk of these middens had therefore accumulated prior to that. In some places, it is true, the bulk has increased during the last hundred years, /610/ but this development cannot be compared with the earlier one because meanwhile the natives have decreased extraordinarily in numbers, because they have somewhat modified

1: Gemeinde--360 E-6 (1918-1924) 1937 5986 Yahgan 5986

their diet since the mission stations were erected, and because, under pressure of the White settlers, they have changed their landing places. We are willing to admit that in those places still chosen for dwellings objects of European origin have found their way into the refuse layer, but that layer is high up and therefore shows its recent origin.

Would we perhaps be able to obtain tangible dates from the height of the midden? To me it seems hopeless to bother about it. For example, Lothrop (b):195, in a "Rate of accumulation of refuse-heaps," estimated the amounts of refuse according to the number of natives, taking as his scale of measurement the daily consumption of mussels and snails. His attempt contains so many sources of error that we must expect an extremely unreliable result from the start. The Yamana do not nourish themselves exclusively with mussels, although these represent a predominant part of their nutrition. At times when a whale is stranded, or swarms of herring swim up onto the coast, or sea birds, fish, and seals occur in extraordinarily large numbers, they prefer these things by far. All these phenomena, however, are not bound to certain periods of time. Moreover, a visit to a preferred, sheltered place was very irregular. Some places were more favored and were therefore more sought out by an indeterminately larger number of families than others. Furthermore, the length of time each of these families remained on the same spot depended on incalculable circumstances. We certainly must not underestimate what it would mean in amounts of refuse if all the families in one place stay three days longer than the same number of families in another place. The difference is very considerable. Hence we cannot doubt that one refuse layer at any given vertical distance from the ground is considerably older than another made under the same conditions of deposit, simply because the former accumulated much more slowly than the latter.

We should like to emphasize that a shell heap grows much faster than many Europeans imagine. If we assume, for example, that every member of a five-member family consumes 60 Mytilus mussels a day -- not too large a number, since I counted more than three times that amount among people who happened to

/610 cont./

have no other meat supply -- this makes a small pile of 1,000 shells in three days. This is increased by ashes, small bones, and bird bones. These remains are tossed out of the hut where they add to the height of the low, ring-shaped wall, also known as banimoa, which extends above the level of the floor. At first they lie loosely upon it, but they are soon pressed down to a more and more solid mass by drifting sand and the action of rain. Now we see very clearly what a single family under /611/ the assumed conditions has left behind altogether (412). Let us say that

412. On the basis of estimated refuse from the daily consumption of mussels, Lothrop (9):197, applying Nelson's scale, figured the age of the shell heaps around Bahía Harberton from 1,300 to 2,600 years. A range of 1,300 years altogether shows everyone clearly enough how unreliable such estimates are.

the same spot remains occupied -- counting the rest-days of the various families -- for a scant half year, that is, for 170 days, by an average family of five. The refuse heap will increase by 102,000 mussel shells. In a less frequently visited spot, on the other hand, the heap increases much more slowly in height and breadth. Who could today determine how rapidly this heap has increased and how slowly that one?

On my second trip I took the trouble in Puerto Róbalo to count and place together 1,000 mussel shells next to one of the large refuse heaps. The difference, it is true, was like that between hillock and mountain; anyone who would like to try this kind of game would find himself forced to reduce considerably the excessively high number of years in estimating the growth of even enormous shell mounds.

Now, can we expect special excavations (413) conscientiously

413. Cooper:218 is in favor of such: "Investigations thus far made in this field have been inadequate and have yielded only unimportant results. Systematic excavations

/422 cont./

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"they were beardless. One or two of the older men had some hair on their faces, which, while talking, they were continually engaged in twitching out" /cited in English/. And Bove (MM:XVIII, 188; 1884) says: "The men have very little beard, and even that little they are accustomed to tear out or cut off with shells" /cited in English/.

In general, they have only very little and faint hair on their

[413]

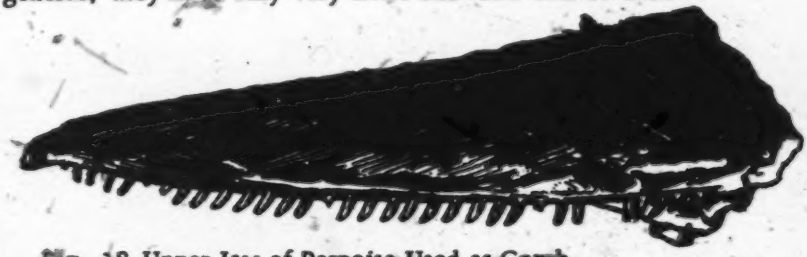

Fig. 18. Upper Jaw of Porpoise Used as Comb. Natural size.

bodies; in this respect they resemble the Selk'nam. /Fig. 18 appears here./

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Under the influence of Whites, younger and middle-aged Yamana have learned not only to dress in modern fashion, but also to wash their faces with soap and to arrange their hair with a comb. Vain chaps shave with imported razors.

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To loosen the hair matted with dirt and lice, not so much because of a desire for cleanliness but because of the discomfort, they use a somewhat coarse comb. It comes in three styles. The most easily obtainable is the upper jaw of the porpoise which is about 12 centimeters long and has two rows of short teeth (Fig. 18). It is occasionally found on the beach where it is so excellently cleaned of all organic matter by wood lice and other lower animals that it can be used without any further preparation. At first this bone is still greasy, which is beneficial for the hair. At any rate it is very easy to use and durable. This comb is called ustánim. Even an otter skull, cleaned of all meat /423/ and without the lower jaw, serves as a comb as long as the few and

/484 cont./
411 around some part of their body to have it quickly accessible at
482 any time, but it is not regarded as an ornament (195). The

195. Hyades (h):33 expressed the surprising view: "We must therefore admit that the sling of the Yahgan is as much an ornamental object for men as it is a weapon for hunting or war" /translated from French/.

[142 302]

Yamana use it not only to stun birds, but also in fighting against their own people.

411 /485/ All indications point to the fact that the sling was used in all parts of the Cape Horn Archipelago./Fig. 41 appears here./ Every man and boy owned and owns one. When the Mission Scientifique arrived in Orange Bay, according to Hyades (q):357, every man carried his sling. This was customary throughout the entire area occupied by this tribe. Lothrop (b):157 indulges in vain speculation about the [177] origin of the sling and says "that the Ona had acquired knowledge of this weapon from the Yaghan" /cited in English/. I cannot agree with this view; I shall not go into his evidence and mine at this point. Instead, I take the view of Snow (b):264 that the Yamana "are remarkably expert with their slings" /cited in English/. Obviously, the fact that they own and use the sling also proves "their ingenuity" /cited in English/.

Fig. 41. Man with a Sling.

8. Snares and Fishing Implements

223 Our Yamana are fortunate in having a wide selection
226 among the animals of their homeland to meet their food needs. They approach each species in a special way in order to catch them as easily and surely as possible. Besides the weapons mentioned

/615 cont./

502

as Hyades (g):38 correctly judges, "work that is not too hard, since the canoes, made exclusively out of the bark of the birch-leaved beech, are marvelously light."

This work is a great strain on the entire upper part of the body, for the legs are neither braced nor do they offer support, and the arms do not rest on the rim of the canoe, yet bear the entire strain of free paddling (418). In the vessel all the occupants must squat

[142]

418. Hence the slight development of the legs in contrast to the sturdy torso of the healthy, active women (p. 219 /untranslated/).

close together deep in the bottom, with their legs tucked under. Its center of gravity is very high, even when it is loaded to capacity, and it would easily tip over if the balance were disturbed. Children are told that they should bend their heads and the upper part of their bodies low; usually they lift themselves only high enough for their eyes to reach the level of the gunwale (419).

419. The words of Lovisato (b):134 are to a certain extent correct: "In this canoe the Fuegians remain in such a position that only their heads may be seen, a position identical with the one they maintain in the wigwam" /translated from Italian/.

502 225 462 Before the family leaves the shore, man and wife have agreed on the goal of the journey or the course. She now steers toward this while he constantly is on the lookout for game. If an animal comes into view, he tells his wife and reaches for his spear or harpoon (420). As the vessel nears the animal, he slowly stands

420. The division of labor within the family is thus clearly expressed. Aspinall:270 refers to this: "Each canoe holds one family; the

/715 cont./

736 854 protected in her hands as in those of its mother (141).

141. Lovisato (b):150 simply repeats what Bridges (a):183 observed long before: "If the mother dies, the little one soon finds a foster-mother, by whom considerable affection is shown" /cited in English/.

• 142 Occasionally it has been maintained that the children are conspicuously small at birth, and Bridges (i):21 writes: "The children are decidedly small at birth and to this fact may be chiefly attributed the mother's immunity from danger" /cited in English/. Bove (e):158 repeats this. Nothing justifies this assumption, and it is a fact that Bridges was by no means in a position to prove it. The color of the skin of the newborn child is considerably lighter than that of adults and later becomes somewhat darker. Fitz-Roy (a):176 says about the Yamana and Halakwulup in general: "Little children are nearly of the same hue as their parents' skin is when cleaned; but infants are, for a few days, rather lighter coloured" [143] /cited in English/. The slight differences in the skin color of newborn children are hereditary.

713 There is a story dealing with the external appearance of the little ones, which old Čenesin, father of Chris, sometimes told young women; "A long time ago a woman became pregnant. She was delivered extraordinarily quickly, and the child left the mother's womb without the slightest hindrance. Immediately it stretched its limbs, stood up by itself, and walked around a bit, for it was strong and sturdy enough to do this. Immediately after that it hastened back into its mother's womb. Thus the belly of that woman grew big. But soon the child again left its mother's womb, stood up, and walked about freely for a little while; then it hastened back in again. Motionlessly the mother lay there and grew big; she did not know what was happening to her. Since the child came out again and once more returned, she grew ever /716/ weaker. Meanwhile the child had grown and become larger, so she, too, swelled constantly. Finally she died as she once more lay on her sleeping place near the fire. At once she dissolved into nothingness, as though she had never consisted of flesh and bones. --

1: Gusinde--1450 E-5 (1918-1924) 1937 SH6 Yahgan SH6

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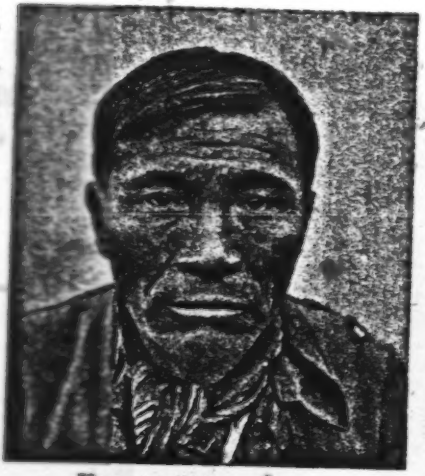

Yamana Man

Yamana Woman

Yamana Children

Children at Play

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Beach of Beagle Channel

1:Gusinde--1453 E-5 (1918-1924) 1937 SH6 Yahgan SH6

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Čiexaus Participants, 1920

Čiexaus Participants, 1922

Yékamuš Aspirant

Čiexaus Painting

Gusinde with his Sponsors

Yékamuš

1: Gusinde--1455 E-5 (1918-1924) 1937 SH6 Yahgan SH6

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Kina Spirit

Kina Spirit

Kina-talauwáia

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Mourning Painting

Mourning Painting

Mourning Painting

Mourning Painting

1: Gusinde--1456 E-5 (1918-1924) 1937 SH6 Yahgan SH6

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Mourning Painting

Mourning Painting

Mourning Painting

Mourning Painting

Mourning Painting

Mourning Painting

1: Gusinde--1457 E-5 (1918-1924) 1937 Sl16 Yahgan Sl16

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Antarctic Beeches

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Mourning Painting

Men Painting Th[illegible]ves

Mourning Painting

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Northeast of Beagle Channel

3: Lothrop E-5 (1924-1925) 1928
SH6 Yahgan SH6

142 To casual observation the Ona impress one by their great height, their barrel-like chests, their splendidly upstanding carriage, and their patent strength and endurance (figs. 7 and 37). Their hair grows abundantly on the head, but sparsely on the face and body, from which in the old days they plucked it with a pair of mussel-shells. Their feet, ankles, hands, and wrists are surprisingly delicate in proportion to their great stature. A peculiar physical characteristic which has escaped comment is the not infrequent presence of purple-black patches like birthmarks on the skin. These may appear on any part of the body, but are especially common on the base of the neck, where an example was noted among the Yahgan. As the Indians are sensitive about such nævi, examination is difficult.

FIG. 5.—Yahgan Indians. (After Hyades and Deniker.)

141 In sharp contrast to the Ona the Yahgan are exceedingly short. Their stature approximates closely that of the Alacaluf, among whom Hyades (1891, p. 120) found an average of 157.4 for eleven men and 148.8 for six women. All visitors to Tierra del
142 Fuego have commented on the corpulence of the Yahgan in relation to their slender legs, a characteristic attributed to long hours spent

3: Lothrop E-5 (1924-1925) 1928
SH6 Yahgan SH6

in the cramped positions compulsory in their canoes. The eastern Yahgan, it is asserted, had better developed legs than the other groups because they hunted more frequently on shore. Like the Ona, the Yahgan had little hair on their faces and removed this growth with mussel-shell pincers. It is stated [1] that on the arrival of the French scientific expedition in 1883 the Yahgan mistook the beards of the Frenchmen for tobacco, and in that belief tried to pull them off.

We should also mention a curious Yahgan anomaly noted by Hyades and Deniker (1891, p. 163) that these Indians tended to put on fat with unusual rapidity in times of plenty, and were able to live on this reserve when food was scarce. Yahgans of age before the white settlement resulted in a less erratic food supply exhibited skin hanging in folds on underfed individuals (fig. 5). The ability to store unusual amounts of fat, most developed in modern races among the Hottentot, has been thought a survival of a hibernating stage in the development of man. Its existence in Paleolithic Europe is deduced from steatopygous figurines among the most ancient carvings produced by human hands. Anatomically, Hyades and Deniker explain this feature by long intestines coupled with a small stomach, leading to rapid and frequent digestion of small amounts of food. The Yahgan stomach was found to contain 1800 cc. as against 3700 cc. for Europeans, presumably Frenchmen, while the Yahgan intestines were six times the length of the body as compared with five times the length of the body in Europeans. These observations and conclusions, it may be mentioned, are not in accord with more recent investigations which reveal a correlation between long intestines and a vegetal diet.

We can say little about the physique of Haush and Alacaluf. the former clearly were related to the Ona, while the latter were short in stature like the Yahgan.

Turning to more exact data, in the accompanying table we give statistical constants for the Ona and the Yahgan, based on all available material. For the preparation of this table I am indebted to Prof. E. A. Hooton of Harvard University, to Mr. Walter Cline, and to Miss Barbara Clark. I am further indebted to Professor Hooton for the subjoined comment.

[1] Capt. Le Clerk in the *South American Missionary Magazine*, 1884, p. 58.

3: Lothrop E-5 (1924-1925) 1928
SH6 Yahgan SH6

PART II

CANOE INDIANS

THE YAHGAN

101 THE Yahgan Indians, the southernmost people in the world, lived on the southern shores of Tierra del Fuego from Brecknock peninsula to Spaniard harbor, and on the adjacent islands southward to Cape Horn itself (pl. IV). In spite of the tempestuous waters they confronted, they were a seafaring people and derived their livelihood almost entirely from the sea and its beaches.

172 Like the Ona, the Yahgan had to move freely and frequently in search of sustenance, but their camping-places were limited by the fact that each family was dependent on a fragile bark canoe, for which shelter must be provided. Thus favorable stretches of beach today are marked by great refuse-heaps, of most extraordinary size when one recalls that they represent only temporary stopping-places and that no family ever camped on a spot where it was known that a death had occurred. Centuries or even milleniums must have witnessed the building up of these vast agglomerations of bone and shell.

177 The Yahgan came under missionary influence in the middle of the nineteenth century, and a permanent mission station was 197 maintained among them from 1870 until recently. Hence their culture was much modified before they could be studied by trained ethnologists. For instance, by the eighties they had modified their initiation rites. We must add that among the Ona those without missionary training tended to survive the longest, but among the Yahgan the last survivors have almost invariably been mission reared.

142 Writing nearly a century ago, Fitzroy (pp. 137–139, 186) thus describes the untrammeled Yahgan of his day:

> The Tekeenica, natives of the south-eastern portion of Tierra del Fuego, are low of stature, ill-looking, and badly proportioned. Their color is that of very old mahogany, or rather between dark copper and

3: Lothrop E-5 (1924-1925) 1928
SH6 Yahgan SH6

142 bronze. The trunk of the body is large in proportion to their cramped and rather crooked limbs. Their rough, coarse, and extremely dirty black hair half hides yet heightens a villainous expression of the worst description of savage features. . . .

MAN, IN CHRISTMAS SOUND, TIERRA DEL FUEGO.

FIG. 42.—Yahgan Indian. (After Hawkesworth.)

291 Sometimes these satires upon mankind wear a part of the skin of a guanaco or a seal skin upon their backs [fig. 42], and perhaps the skin of a penguin or a bit of bird hide hangs in front; but often there is nothing, either to hide their nakedness or to preserve warmth, except a scrap of hide, which is tied to the side or back of the body, by a string around the waist. Even this is only for a pocket, in which they may carry stones for their slings, and hide what they pick up or pilfer. A man always carries his sling around his neck or waist, wherever he goes.

1: Cooper S-4 (no date) 1946 SMS Tabwicke
Kahgan SM6
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[p. 160 D]